

1-19. (CANCELED)

20. (CURRENTLY AMENDED) The method as claimed in claim [[19]] 37, wherein the current is supplied to the current transmitter unit (1) via a magnet slide (12) which is provided with electrical current supply contacts (13) and, after the first step is moved in the direction of the current receiver unit (3) after the first step with the mechanical connection by means of the magnet bodies (14) in the current receiver unit (3), thus making the electrical contact. ♦♦

21. (CANCELED) ♦♦

22. (CURRENTLY AMENDED) The connection apparatus as claimed in claim [[21]] 36, wherein the flat contacts (2, 4) are arranged in an elastic wall (8) of the current transmitter unit (1) or of the current receiver unit (3). ♦♦

23. (CURRENTLY AMENDED) The connection apparatus as claimed in claim [[21]] 36, wherein the mechanical guide (9, 10 or 11a, 11b, respectively) is designed such that at the end of the mechanical insertion process, the magnet bodies in the current transmitter unit (1) and the magnet bodies in the current receiver unit (3) are arranged at least partially opposite one another. ♦♦

24. (CURRENTLY AMENDED) The connection apparatus as claimed in claim [[21]] 36, wherein the mechanical approximate guide has a side guide (11a, 11b) by means of which the current transmitter unit (1) ~~can be~~ is positioned above the current receiver unit (3). ♦♦

25. (CURRENTLY AMENDED) The connection apparatus as claimed in claim 24, wherein the side guide is formed by connection elements in the form of dovetail guides (11a, 11b) in the current transmitter unit (1) and in the current receiver unit (3), with the dovetail guides (11a, 11b) ~~being designed with oversized~~ has play. ♦♦

26. (CURRENTLY AMENDED) The connection apparatus as claimed in claim 25, wherein the play is at least 1 mm, ~~and is preferably 2 mm~~, at least in the direction of the current receiver unit (3) to be fitted. ♦♦

27. (CURRENTLY AMENDED) The connection apparatus as claimed in claim [[21]] 36, wherein the approximate guide has a vertical guide (9, 10) by means of which the current receiver unit (3) ~~can be~~ is fitted to the current transmitter unit (1). ♦♦

28. (PREVIOUSLY PRESENTED) The connection apparatus as claimed in claim 27, wherein the connection elements of the vertical guide are provided with oblique guides in the form of conical depressions (10) or projections (9).

29. (CURRENTLY AMENDED) The connection apparatus as claimed in claim 28, wherein the oblique guides (9, 10) are provided with ~~oversize~~ play. ❖

30. (CURRENTLY AMENDED) The connection apparatus as claimed in claim 29, wherein the play which is possible on the oblique guides (9, 10) is at least 1 mm, ~~and is preferably 2 mm.~~ ❖

31-32. (CANCELED) ❖

33. (CURRENTLY AMENDED) The connection apparatus as claimed in claim ~~[[21]]~~ 36, wherein the current transmitter unit (1) is provided with a magnet tray (12), which is provided with current supply contacts (16), with the magnet tray (12) being moveable in the direction of the current receiver unit (3) which is to be fitted, and with an electrical connection to the contact elements (2) being formed in the moved position. ❖

34. (PREVIOUSLY PRESENTED) The connection apparatus as claimed in claim 33, wherein the magnet tray (12) is provided with a restraining device (15).

35. (PREVIOUSLY PRESENTED) The connection apparatus as claimed in claim 34, wherein the restraining device is provided with a magnet (15) or a material composed of a magnetic substance, which is arranged in the current transmitter unit (1) on the side facing away from the current receiver unit (3) which is to be fitted.

36. (NEW) A connection apparatus for establishing electrical connections between an electrical transmitter unit (1) and an electrical receiving unit (3), the connection apparatus comprising:

mating electrical contact elements (2, 4) located in corresponding opposing positions in the transmitter unit (1) and the receiver unit (3);

the contact elements (2, 4) being formed of magnetic bodies having opposing contact surfaces (7) and each pair of opposing contact elements (2, 4) having oppositely oriented magnetic fields whereby the magnetic fields of opposing contact elements (2, 4) interact to guide and attract the contact elements (2, 4) toward each

other to form a contact between the contact surfaces (7) of each opposing pair of contact elements (2, 4); and

a mechanical approximate positioning guide (9, 10 or 11a, 11b) including:

a first approximate positioning guide element (9 or 11a) on the transmitter unit (1) and corresponding and mechanically mating second approximate positioning guide element (9 or 11a) on the receiver unit (3) and a transmitter unit (1);

wherein a positioning tolerance between the first and the second positioning guide elements (9 or 11a and 10 or 11b) is sufficient to bring the magnetic fields of each opposing pair of contact elements (2, 4) into an attraction range of each other but is insufficient to bring the contact surfaces (7) of the contact elements (2, 4) into mechanical contact to form an electrical connection between the contact elements (2, 4), whereby the mechanical approximate positioning guide provides an initial positioning of the transmitter unit (1) and the receiving unit (3) to bring the magnetic fields of the opposing contact element (2, 4) into an interacting position and the magnetic fields of the contact elements (2, 4) provide a final alignment of the contact elements (2, 4) to bring the contact surfaces (7) of the contact elements (2, 4) into mechanical contact to form an electrical connection.

37. (NEW) A method for establishing electrical connections between an electrical transmitter unit (1) and an electrical receiving unit (3), the method comprising the steps of:

performing an initial approximate positioning of the transmitter unit (1) and the receiving unit (3) to bring magnetic fields of opposing contact elements (2, 4) into an interacting position by means of a mechanical approximate positioning mechanism, including:

a first approximate positioning guide element (9 or 11a) on the transmitter unit (1) and corresponding and mechanically mating second approximate positioning guide element (9 or 11a) on the receiver unit (3) and a transmitter unit (1);

wherein a positioning tolerance between the first and the second positioning guide elements (9 or 11a and 10 or 11b) is sufficient to bring the magnetic fields of each opposing pair of contact elements (2, 4) into an attraction range of each other but is insufficient to bring the contact surfaces (7) of the contact elements (2, 4)

into mechanical contact to form an electrical connection between the contact elements (2, 4); and

performing a final alignment of the contact elements (2, 4) to bring contact surfaces (7) of the contact elements (2, 4) into mechanical contact to form an electrical connection by means of a magnetic final alignment mechanism, including:

the mating electrical contact elements (2, 4) located in corresponding opposing positions in the transmitter unit (1) and the receiver unit (3);

the contact elements (2, 4) being formed of magnetic bodies having opposing contact surfaces (7) with each pair of opposing contact elements (2, 4) having oppositely oriented magnetic fields whereby the magnetic fields of opposing contact elements (2, 4) interact to guide and attract the contact elements (2, 4) toward each other to form a contact between the contact surfaces (7) of each opposing pair of contact elements (2, 4).

38. (NEW) A connection apparatus for establishing electrical connections between an electrical transmitter unit (1) and an electrical receiving unit (3), the connection apparatus comprising:

mating electrical contact elements (2, 4) located in corresponding opposing positions in the transmitter unit (1) and the receiver unit (3);

the contact elements (2, 4) having opposing contact surfaces (7) and associated magnetic bodies with the magnetic bodies associated with each pair of opposing contact elements (2, 4) having oppositely oriented magnetic fields whereby the magnetic fields of the magnetic bodies associated with opposing contact elements (2, 4) interact to guide and attract the contact elements (2, 4) toward each other to form a contact between the contact surfaces (7) of each opposing pair of contact elements (2, 4); and

a mechanical approximate positioning guide (9, 10 or 11a, 11b) including:

a first approximate positioning guide element (9 or 11a) on the transmitter unit (1) and corresponding and mechanically mating second approximate positioning guide element (9 or 11a) on the receiver unit (3) and a transmitter unit (1);

wherein a positioning tolerance between the first and the second positioning guide elements (9 or 11a and 10 or 11b) is sufficient to bring the magnetic

fields of the magnetic bodies associated with each opposing pair of contact elements (2, 4) into an attraction range of each other but is insufficient to bring the contact surfaces (7) of the contact elements (2, 4) into mechanical contact to form an electrical connection between the contact elements (2, 4), whereby the mechanical approximate positioning guide provides an initial positioning of the transmitter unit (1) and the receiving unit (3) to bring the magnetic fields of the magnetic bodies associated with the opposing contact element (2, 4) into an interacting position and the magnetic fields of the magnetic bodies associated with the contact elements (2, 4) provide a final alignment of the contact elements (2, 4) to bring the contact surfaces (7) of the contact elements (2, 4) into mechanical contact to form an electrical connection.

39. (NEW) A method for establishing electrical connections between an electrical transmitter unit (1) and an electrical receiving unit (3), the method comprising the steps of:

- performing an initial approximate positioning of the transmitter unit (1) and the receiving unit (3) to bring magnetic fields of magnetic bodies associated with opposing contact elements (2, 4) into an interacting position by means of a mechanical approximate positioning mechanism, including:

- a first approximate positioning guide element (9 or 11a) on the transmitter unit (1) and corresponding and mechanically mating second approximate positioning guide element (9 or 11a) on the receiver unit (3) and a transmitter unit (1);

- wherein a positioning tolerance between the first and the second positioning guide elements (9 or 11a and 10 or 11b) is sufficient to bring the magnetic fields of the magnetic bodies associated with each opposing pair of contact elements (2, 4) into an attraction range of each other but is insufficient to bring the contact surfaces (7) of the contact elements (2, 4) into mechanical contact to form an electrical connection between the contact elements (2, 4); and

- performing a final alignment of the contact elements (2, 4) to bring contact surfaces (7) of the contact elements (2, 4) into mechanical contact to form an electrical connection by means of a magnetic final alignment mechanism, including:

the magnetic bodies associated with the mating electrical contact elements (2, 4) located in corresponding opposing positions in the transmitter unit (1) and the receiver unit (3);

the contact elements (2, 4) having opposing contact surfaces (7) and associated magnetic bodies with the magnetic bodies associated with each pair of opposing contact elements (2, 4) having oppositely oriented magnetic fields whereby the magnetic fields of the magnetic bodies associated with opposing contact elements (2, 4) interact to guide and attract the contact elements (2, 4) toward each other to form a contact between the contact surfaces (7) of each opposing pair of contact elements (2, 4).